

KeyPath™ MRSA/MSSA Blood Culture Test

Accelerated Identification and Antibiotic Susceptibility Results

Staphylococcus aureus bloodstream infections (BSI) have a fatality risk of 30- to 40-percent, allowing only a small window of time to administer the appropriate antibiotic therapy to prevent a downward spiral into sepsis¹. Today’s diagnostic methods require 48 to 72 hours to deliver antibiotic susceptibility results – leading doctors to prescribe broad-spectrum antibiotics as treatment, rather than therapy tailored to their specific patients’ needs. Unfortunately, this situation has led to increased incidence of antibiotic resistance and higher fatality rates.

¹ Pfaller et al. *J. Antimicrob. Agent. Chemother.* (42): 1762-1770

Empower Better Treatment Decisions

The KeyPath™ MRSA/MSSA Blood Culture Test enables clinicians to optimize therapy sooner by identifying and differentiating methicillin-sensitive *S. aureus* (MSSA) from methicillin-resistant *S. aureus* (MRSA). Results are available in just five and a half hours – one to two days faster than ordinarily possible.



KeyPath™ Technology

- » MicroPhage Technology **accelerates** *S. aureus* detection
- » Growth-based technique enables true **phenotypic** measurement of bacterial response to antibiotics
- » Unique dual assay design delivers identification and **antibiotic susceptibility** results simultaneously

KeyPath™ Benefits

- » *S. aureus* identification and susceptibility results **1 to 2 days sooner** than most current methods
- » Detects genetically **mutated strains** (see back)
- » Facilitates **earlier optimization** of antimicrobial therapy
- » Provides information that may **improve patient outcomes** and decrease length of hospital stay
- » Simple – requires **no special equipment** or training



KeyPath™

Traditional Method – Up To Two More Days Waiting...

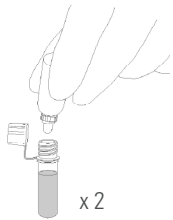
Time (Hrs) 12 24 36 48 60 72 84 96 108

KeyPath™

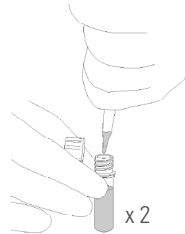
4 Simple Steps to Accelerated Susceptibility Results

- » No instrumentation
- » Simple procedure requires only 5 minutes of hands-on time
- » Susceptibility results based on actual bacterial response to antibiotic (cefoxitin)

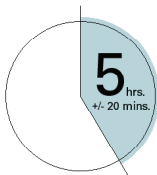
STEP 1: COMBINE REAGENTS.



STEP 2: ADD 10 UL GRAM-POSITIVE SAMPLE.

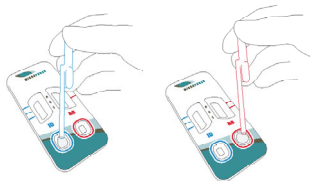


STEP 3: INCUBATE.



STEP 4: ADD SAMPLE TO DETECTOR.

- » Read in 20-30 minutes.



Clinically Proven Performance KeyPath™ MRSA/MSSA Blood Culture Test

- » *S. aureus* identification
 - » Sensitivity: 91.8%
 - » Specificity: 98.3%
- » Meets CLSI guidelines for antibiotic susceptibility reporting
 - » 99.4% accurate for MSSA*
 - » 98.9% accurate for MRSA*

		SA/TCT + FOX DD std**		
		MRSA	MSSA	Not SA
KeyPath™ MRSA/MSSA Blood Culture Test	MRSA	178	1	4
	MSSA	2	153	9
	NSA	11	19	737

N=1114

**SA/TCT = *S. aureus* Tube Coagulase Test. FOX DD = Cefoxitin Disk Diffusion

* Susceptibility results are reported only when *S. aureus* is identified



Demonstrated to Detect Variant Strains Missed by PCR

S. aureus strains with *mecA* variants have been reported with prevalence up to 12.9%.¹ KeyPath™ was used to test 28 different variant strains that PCR methods had incorrectly identified as MRSA.² KeyPath™ correctly identified all 28 as MSSA.³

Identified as MSSA

Culture	28 / 28
PCR	0 / 28
KeyPath™	28 / 28

¹ Huletsky A, JCM 2004 May; 42(5):1875-84. Blanc DS, JCM Jan 2011.

² PCR results by Cepheid® Xpert MRSA and a lab-developed PCR test.

³ Data on file.

Ordering Information:

Product	KeyPath™ MRSA/MSSA Blood Culture Test - BT
Kit Size	25 tests/kit
MicroPhage Catalog #	910-00003-US